

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): A shift register block comprising:

at least one system of a first shift register comprising a plurality of spaced-apart, cascade-connected unit circuits ~~in a form of cascade connection~~ and outputting an input signal in response to a clock signal, the first shift register sequentially outputting a selection signal from output-stages comprised of the unit circuits,

wherein:

a first circuit which is not one of the plurality of unit circuits of the first shift register is ~~are~~ disposed in the physical space between ~~with~~ a unit circuit of a preceding output stage and a unit circuit of a following output stage ~~being separated by a circuit which is different from the unit circuits and;~~ and

the first circuit is not involved in operation of the first shift register so that an output of the first circuit is not supplied to any of the unit circuits of the first shift register.

MAEDA et al.

Serial No. 10/714,935

Amendment Accompanying Request for Continued Examination

Claim 2 (Original): The shift register block as set forth in claim 1, wherein:

the unit circuits are flip-flop circuits.

Claim 3 (Currently Amended): The shift register block as set forth in claim 1, wherein:

the first circuit ~~different from the unit circuits~~ is a processing circuit which uses output of one of the unit circuits.

Claim 4 (Currently Amended): The shift register block as set forth in claim 1, wherein:

the first circuit ~~different from the unit circuits~~ is a unit circuit for a second shift register ~~of a different~~ from the first shift register system.

Claim 5 (Currently Amended): The shift register block as set forth in claim 1, wherein:

the first circuit ~~different from the unit circuits~~ is a processing circuit which uses output of one of the unit circuits, a unit circuit for a second shift register ~~of a different~~ from the first shift register system, or a processing circuit which uses output of the unit circuit for the second shift register ~~of the different system~~.

Claim 6 (Currently Amended): The shift register block as set forth in claim 4,
wherein:

~~the shift register block includes~~ signal paths for the first and second shift registers
are of the respective systems, the signal path being provided separately for each of the
first and second shift registers ~~of the respective systems~~ on both sides of a circuit
alignment of the unit circuits of the first and second shift registers ~~of the respective~~
~~systems.~~

Claim 7 (Currently Amended): The shift register block as set forth in claim 5,
wherein:

~~the shift register block includes~~ signal paths for the first and second shift registers
are of the respective systems, the signal path being provided separately for each of the
first and second shift registers ~~of the respective systems~~ on both sides of a circuit
alignment of the unit circuits of the first and second shift registers ~~of the respective~~
~~systems.~~

Claim 8 (Currently Amended): A signal line driving circuit, comprising:
a shift register block for sequentially outputting a selection signal, so as to drive a
plurality of signal lines,

wherein:

the shift register block comprises:

at least one system of a first shift register comprising a plurality of spaced-apart, cascade-connected unit circuits ~~in a form of cascade connection~~ and outputting an input signal in response to a clock signal, the first shift register sequentially outputting a selection signal from output-stages comprised of the unit circuits, wherein a first circuit which is not one of the plurality of unit circuits of the first shift register is being disposed in the physical space between ~~with~~ a unit circuit of a preceding output stage and a unit circuit of a following output stage ~~being separated by a circuit which is different from the unit circuits~~ and the first circuit is not involved in operation of the first shift register so that an output of the first circuit is not supplied to any of the unit circuits of the first shift register.

Claim 9 (Currently Amended): A data signal line driving circuit comprising:
a sampling section for driving a plurality of data signal lines by sampling image data from an image signal according to a selection signal sequentially outputted from a shift register block so as to transfer the image data to the data signal lines,
wherein:

the shift register block comprises:

at least one system of a first shift register comprising a plurality of spaced-apart, cascade-connected unit circuits ~~in a form of cascade connection~~ and outputting an input signal in response to a clock signal, the first shift register sequentially outputting a selection signal from output-stages comprised of the unit circuits, wherein a first circuit

which is not one of the plurality of unit circuits of the first shift register is being disposed in the physical space between with a unit circuit of a preceding output stage and a unit circuit of a following output stage ~~being separated by a circuit which is different from the unit circuits~~ and the first circuit is not involved in operation of the first shift register so that an output of the first circuit is not supplied to any of the unit circuits of the first shift register.

Claim 10 (Original): The data signal line driving circuit as set forth in claim 9, wherein:

the sampling section carries out sampling of image data of divided image signals which are generated by dividing the image signal according to an alignment order of the data signal lines, the sampling section simultaneously carrying out sampling of the image data of the divided image signals.

Claim 11 (Currently Amended): The data signal line driving circuit as set forth in claim 9, wherein:

the image signal is an analog signal, and the first circuit ~~different from the unit circuits~~ comprises at least one of a waveform shaping circuit, a buffer circuit, a sampling circuit, and a level shifter circuit, which use outputs of the unit circuits.

Claim 12 (Currently Amended): The data signal line driving circuit as set forth in claim 9, wherein:

the image signal is a digital signal, and the first circuit ~~different from the unit circuits~~ comprises at least one of a data latch circuit, a digital/analog conversion circuit, an output circuit, a level shifter circuit, and a decoder circuit, which use outputs of the unit circuits.

Claim 13 (Currently Amended): A display device, comprising:
a plurality of data signal lines;
a plurality of scanning signal lines intersecting with the data signal lines;
pixels provided for each pair of the data signal lines and the scanning signal lines;
a scanning signal line driving circuit for driving the scanning signal lines; and
a data signal line driving circuit comprising a sampling section for driving a plurality of data signal lines by sampling image data from an image signal according to a selection signal sequentially outputted from a shift register block so as to transfer the image data to the data signal lines,

wherein:
the shift register block of the data signal line driving circuit comprises:
at least one system of a first shift register comprising a plurality of spaced-apart, cascade connected unit circuits ~~in a form of cascade connection~~ and outputting an input signal in response to a clock signal, the first shift register sequentially outputting a

selection signal from output-stages comprised of the unit circuits, wherein a first circuit which is not one of the plurality of unit circuits of the first shift register is being disposed in the physical space between with a unit circuit of a preceding output stage and a unit circuit of a following output stage ~~being separated by a circuit which is different from the unit circuits~~ and the first circuit is not involved in operation of the first shift register so that an output of the first circuit is not supplied to any of the unit circuits of the first shift register.

Claim 14 (Original): The display device as set forth in claim 13, wherein:

the data signal line driving circuit and the scanning signal line driving circuit are formed on a substrate on which the pixels are formed.

Claim 15 (Original): The display device as set forth in claim 14, wherein:

the pixels, the data signal line driving circuit, and the scanning signal line driving circuit include active elements, respectively, each of which is made of a polysilicon thin film transistor.

Claim 16 (Original): The display device as set forth in claim 15, wherein:

the active elements are formed on a glass substrate at a process temperature of not more than 600°C.

Claim 17 (Currently Amended): A shift register block comprising:

a first shift register comprising a plurality of cascade-connected unit circuits for sequentially propagating an input signal therethrough in response to a clock signal, the unit circuits of the first shift register being linearly disposed so that physical spaces are provided between each adjacent pair of unit circuits; wherein ~~and~~

~~circuits other than different from the~~ unit circuits of the first shift register are disposed in the physical spaces between adjacent unit circuits of the first shift register,

wherein outputs from the respective other ~~different~~ circuits are not supplied to any of the unit circuits of the first shift register.

Claim 18 (Currently Amended): The shift register block according to claim 17, wherein the other circuits ~~different from the unit circuits~~ comprise waveform processing circuits.

Claim 19 (Currently Amended): The shift register block according to claim 17, wherein the other circuits ~~different from the unit circuits~~ comprise unit circuits for a second shift register different from the first shift register.

Claim 20 (Previously Presented): A display device comprising the shift register block according to claim 17.